

Application No.: 10/710,886

Docket No.: 22040-00035-US1

REMARKS

Claims 1, 3, and 4 remain pending in this application. Claim 1 and 3 are independent. Claims 1, 3, and 4 have been amended, claim 2 has been canceled, and no claims have been added by this amendment.

Anticipation Rejection Over Asai

Withdrawal of the rejection of claims 1-3 under 35 U.S.C. §102(b) as being anticipated by Asai (US 5,926,278) is requested. Claim 2 has been canceled, thus rendering its rejection moot.

Applicant notes that anticipation requires the disclosure, in a prior art reference, of each and every limitation as set forth in the claims.¹ There must be no difference between the claimed invention and reference disclosure for an anticipation rejection under 35 U.S.C. §102.² To properly anticipate a claim, the reference must teach every element of the claim.³ "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference".⁴ "The identical invention must be shown in as complete detail as is contained in the ...claim."⁵ In determining anticipation, no claim limitation may be ignored.⁶

The applied art fails to meet the legal requirement for anticipation as set forth above.

The applied art does not disclose a circuit board transferring apparatus wherein, among other features, "...wherein the attracting nozzle mounts and releases the circuit board in an upward facing position on a photographing table to image the pad forming face with the image processing means...after the image processing means images the pad forming face, the attracting nozzle picks up the circuit board from the photographing table in a specified position by the positioning means and transfers the circuit board to a predetermined position on the carrying tray

¹ *Titanium Metals Corp. v. Banner*, 227 USPQ 773 (Fed. Cir. 1985).

² *Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 USPQ2d 1001 (Fed. Cir. 1991).

³ See MPEP § 2131.

⁴ *Verdegaal Bros. v. Union Oil Co. of Calif.*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

⁵ *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

⁶ *Pac-Tex, Inc. v. Amerace Corp.*, 14 USPQ2d 187 (Fed. Cir. 1990).

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while maintaining the pad forming face in the upward facing position," as recited in independent claim 1, as amended.

Further, the applied art does not disclose a circuit board transferring method which includes, among other features, "...releasing the circuit board from the attracting nozzle and mounting the circuit board on a photographing table such that the pad-forming face of the circuit board is mounted in an upward facing position; photographing the pad forming face of the circuit board to recognize a pad arrangement through image processing; deciding a transfer position of the circuit board on a carrying tray in accordance with the recognition result of the pad arrangement; and transferring the circuit board to the carrying tray on whose surface an adhesive layer is formed while maintaining the pad-forming face of the circuit board in the upward facing position," as recited in independent claim 3, as amended.

Asai discloses that the pad forming face 16 is oriented in a downward facing position, and does not disclose use of a photographing table, or an apparatus which, in an intermediate step, mounts and releases the circuit board on a photographing table before placing the circuit board on the carrying tray after the position/orientation of the circuit board is corrected.

Therefore, since the applied art does not disclose all the claimed limitations, withdrawal of the rejection and allowance of independent claims 1 and 3 are respectfully requested.

Also, since dependent method of use claim 4 depends from otherwise allowable claim 1, allowance of claim 4 is also requested.

Anticipation Rejection Over Foulke et al.

Withdrawal of the rejection of claims 1-4 under 35 U.S.C. §102(b) as being anticipated by Foulke et al. (US 6,170,737) is requested. Claim 2 has been canceled, thus rendering its rejection moot. The legal requirements for anticipation have been set forth above.

Foulke et al. does not disclose a circuit board transferring apparatus which includes, among other features, "...positioning means for deciding a transfer position of the circuit board

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on the carrying tray in accordance with a recognition result by the image processing means, wherein the attracting nozzle mounts and releases the circuit board in an upward facing position on a photographing table to image the pad forming face with the image processing means, and wherein, after the image processing means images the pad forming face, the moving mechanism picks up the circuit board from the photographing table in a corrected position and transfers the circuit board to a predetermined position on the carrying tray while maintaining the pad forming face in the upward facing position," as recited in independent claim 1, as amended.

Further, the applied art does not disclose a circuit board transferring method which includes, among other features, "...releasing the circuit board from the attracting nozzle and mounting the circuit board on a photographing table such that the pad-forming face of the circuit board is mounted in an upward facing position; photographing the pad forming face of the circuit board to recognize a pad arrangement through image processing; transferring the circuit board to a carrying tray on whose surface an adhesive layer is formed while maintaining the pad-forming face of the circuit board in the upward facing position; and deciding a transfer position of the circuit board on the carrying tray in accordance with the recognition result of the pad arrangement," as recited in independent claim 3, as amended.

Foulke et al. merely discloses use of camera 50 to view array 80 on carrier plate 18 via mirror 48 to determine if the array of holes 82 is completely filled by solder balls 102 as may be required, depending on the desired array pattern of solder balls. See Foulke et al. col. 4, lines 18-28.

There is no teaching or suggestion in Foulke et al. to use camera 50 to decide a transfer position of the circuit board on a carrying tray.

Therefore, since the applied art does not disclose all the claimed limitations, withdrawal of the rejection and allowance of independent claims 1 and 3 are respectfully requested.

Also, since dependent method of use claim 4 depends from otherwise allowable claim 1, allowance of claim 4 is also requested.

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Conclusion

In view of the above amendment, applicant believes that each of pending claims 1 3, and 4 in this application is in condition for allowance.

In the event that the Examiner believes that an interview would serve to expedite resolution of any outstanding matter in this application, the undersigned attorney is available at the telephone number indicated below.

Applicant believes no fee is due with this response. However, if a fee is due, please charge CBLH Deposit Account No. 22-0185, under Order No. 22040-00035-US1 from which the undersigned is authorized to draw.

Respectfully submitted,

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